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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/591,123

10/30/2006

Sven-Ake Jonsson

1511-1055

7455

466

7590

03/24/2009

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EXAMINER

HUANG, CHENG YUAN

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

03/24/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/591,123	<b>Applicant(s)</b> JONSSON, SVEN-AKE	
	<b>Examiner</b> CHENG HUANG	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 2, 14, 15, 16, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 2, in view of the phrase "preferably," it is unclear whether the claimed elongation at break value is limited to "at most 250%," "at most 200%," or "at most 110%." Since multiple ranges are claimed, it is unclear which of the ranges limits the scope of the claimed limitation. Applicant is advised to delete the preferred phrases to improve clarity and precision of the claim language.

3. Regarding claims 14, 15, 16, and 17, instead of narrowing the scope of the claimed invention, each of the dependent claims recite ranges that broaden the scope of the claimed invention. For example, claim 14 recites a tensile strength in the axial direction of "at least 100 N/mm<sup>2</sup>", which depends from claim 1 that recites a tensile strength in the axial direction of "at least 210 N/mm<sup>2</sup>," and is considered to be a broader range.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dronzek et al. (WO 93/09925) in view of Hakansson (U.S. Patent Application Publication No. 2002/0139707), and further in view of Sloan et al. (U.S. Patent No. 5,850,940).

7. Regarding claim 1, Dronzek et al. teaches thin-walled plastic containers (page 12, lines 26-29), which include thin walled-plastic tubes comprising a tube body with a tube shoulder with an emptying opening at the first end and an end closure at the second end, manufactured by injection molding. The plastic tube comprises a label applied simultaneously with the injection molding (page 12, lines 30-33). Dronzek et al. teaches the label being comprised of a plastic film, e.g. monoaxially oriented thermoplastic polypropylene film with a thickness of 0.003 inches (76  $\mu\text{m}$ ), a density of 0.905 g/cm<sup>3</sup>, tensile strength of 28,000 psi (193 N/mm<sup>2</sup>), and elongation at break of 60% (page 12, lines 30-33; page 13, lines 16-30). Dronzek et al. further discloses label thicknesses of 0.002 to 0.008 inches (50.8 to 203.2  $\mu\text{m}$ , page 4, lines 32-33), which overlaps the claimed range of at most 75  $\mu\text{m}$ . Even though Dronzek et al. does not explicitly disclose the claimed tensile strength value of 210 N/mm<sup>2</sup> and elongation at break value

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of at most 25%, and gives only a couple of examples, additional materials which are disclosed by Dronzek et al. to be substantially identical, if not identical, to the materials of the label of the instantly claimed invention and the method of making the container body being simultaneously manufactured by injection molding, in addition to the overlapping ranges of label material density and thickness, which are all commensurate with the instant disclosure, it would be expected that the claimed tensile strength and elongation at break values are inherently achieved in Dronzek et al.

8. Regarding claim 1, Dronzek et al. does not explicitly teach a tube body having a wall thickness of 0.3-1.2 mm or a squeezable plastic tube.

9. However, Hakansson discloses a plastic container/dispenser, i.e. tube, comprising a label being simultaneously formed with injection molding, wherein the container/dispenser has a wall thickness of “0.5-1 mm, typically 0.7 mm” (paragraph [32-34]). Hakansson discloses that such a thickness will enhance transparency, lower weight, and retain resistance to physical damage due to incautious handling of the dispenser and strains of Hakansson (paragraph 33) depending on the chosen polymer which is disclosed to include polyethylene or polypropylene (paragraph [30]).

10. Dronzek et al. and Hakansson are analogous because they all discuss containers comprised of labels made simultaneously by injection molding.

11. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the thin walled plastic tube of Dronzek et al. with the wall thickness of Hakansson for the purposes of easily achieving transparency, lowering weight, and retaining resistance to damage due to incautious handling of the dispenser and strains of Hakansson (paragraph [33]).

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12. Dronzek et al. as modified by Hakansson does not explicitly teach a squeezable plastic tube.

13. However, Sloan et al. discloses a plastic flexible, hand-squeezable, container that can be made by injection molding (col. 5, lines 36-48). Furthermore, the container of Sloan et al. is made from substantially identical, if not identical, materials including thermoplastic polymers, such as polyethylene or polypropylene, comprising a label (col. 10, lines 55-56).

14. It would have been obvious to one of ordinary skill in the art at the time of the invention to form a squeezable plastic container as taught by Sloan et al. using the process taught by Dronzek et al. and Hakansson. Given substantially identical, if not identical, materials of biaxially oriented polypropylene film labels and polyethylene or polypropylene container bodies, a squeezable tube with label would have been successfully produced simultaneously through injection molding.

15. Regarding all applicable claims, Dronzek et al. as modified by Hakansson and further modified by Sloan et al. teaches a thin-walled squeezable plastic tube.

16. Regarding claim 2, Dronzek et al. discloses a plastic film having machine and transverse direction tensile strength values, i.e., MD=110 N/mm<sup>2</sup>, TD=193 N/mm<sup>2</sup>, that exceed the claimed radial tensile strength value of at least 120 N/mm<sup>2</sup> and machine and transverse elongation at break values, i.e., MD=160%, TD=60% (page 13, lines 16-30), that falls within the claimed ranges of at most 250%, at most 200%, at most 110%. The claimed radial tensile strength and elongation at break values are identified with the transverse direction of Dronzek's film in view of Fig. 1 in the specification. Therefore, it would be expected that the claimed radial tensile strength and elongation at break values are inherently achieved in Dronzek et al. Furthermore,

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even if the machine direction in Dronzek et al. should be identified with the claimed radial direction, additional materials which are disclosed by Dronzek et al. to be substantially identical, if not identical, to the materials of the label of the instantly claimed invention and the method of making the container body being simultaneously manufactured by injection molding, in addition to the overlapping ranges of label material density and thickness, which are all commensurate with the instant disclosure, it would be expected that the claimed tensile strength values are inherently achieved in Dronzek et al.

17. Regarding claims 3-6 and 10-12, it would have been obvious to one skilled in the art at the time of the invention to apply the teachings of the prior art of in-mold labeling of labels to containers to include covering the surface of the substrate with a label in the various manners claimed, given the teachings of Dronzek et al. as modified by Hakansson and further modified by Sloan et al., as being routine experimentation and given the teachings and guidance in the prior art for in-mold labeling as a matter of design choice. See MPEP 2144.04

18. Regarding claim 7, Dronzek et al. further discloses a plastic film being a multilayer film comprising at least one layer of oriented polypropylene (page 11, lines 1-10; page 12, lines 15-17; page 17, lines 23-24).

19. Regarding claim 8, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize a variety of end closures of containers and be motivated to apply the label as taught by Dronzek et al. as modified by Hakansson and further modified by Sloan et al. onto a container having a non-linear end closure with a reasonable expectation of success as a matter of design choice for the container end closure. See MPEP 2144.04.

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20. Regarding claim 9, Dronzek et al. further discloses the said plastic film having a density of  $0.905 \text{ g/cm}^3$ , which falls within the claimed range of 0.5 to  $1.0 \text{ g/cm}^3$ .

21. Regarding claim 13, Dronzek et al. teaches thin-walled plastic containers (page 12, lines 26-29), which include thin walled-plastic tubes comprising a tube body with a tube shoulder with an emptying opening at the first end and an end closure at the second end, manufactured by injection molding. The plastic tube comprises a label applied simultaneously with the injection molding (page 12, lines 30-33). Dronzek et al. teaches the label being comprised of a plastic film, e.g. monoaxially oriented thermoplastic polypropylene film with a thickness of 0.003 inches ( $76 \text{ }\mu\text{m}$ ), a density of  $0.905 \text{ g/cm}^3$ , tensile strength of 28,000 psi ( $193 \text{ N/mm}^2$ ), which falls within the claimed value of at least  $150 \text{ N/mm}^2$ , and elongation at break of 60% (page 12, lines 30-33; page 13, lines 16-30). Dronzek et al. further discloses label thicknesses of 0.002 to 0.008 inches ( $50.8$  to  $203.2 \text{ }\mu\text{m}$ , page 4, lines 32-33), which overlaps the claimed range of at most  $90 \text{ }\mu\text{m}$ . Even though Dronzek et al. does not explicitly disclose the claimed elongation at break value, given substantially identical, if not identical, to those of the instantly claimed invention and the method of making the container body being simultaneously manufactured by injection molding, in addition to the overlapping ranges of label material density and thickness, which are all commensurate with the instant disclosure, it would be expected that the elongation at break values are inherently achieved in Dronzek et al.

22. Regarding claim 14, 16 and 17, Dronzek et al. teaches a plastic film having machine and transverse direction tensile strength values, i.e., MD= $110 \text{ N/mm}^2$ , TD= $193 \text{ N/mm}^2$ , that exceed the claimed value of at least  $100 \text{ N/mm}^2$ , at least  $50 \text{ N/mm}^2$ , and at least  $80 \text{ N/mm}^2$



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23. Regarding claim 15, Dronzek et al. teaches a plastic film having an elongation at break of 60%, which falls within the claimed range of at most 70%.

24. Regarding claim 18, Dronzek et al. teaches a plastic film having a density of  $0.905 \text{ g/cm}^3$ , which falls within the claimed range of 0.5 to  $1.0 \text{ g/cm}^3$ .

25. Regarding claims 3-6 and 10-12, Dronzek et al. is silent as to the label orientation on the tube, label extension around the entire tube body in the radial direction, label extension over the entire length of the tube body, label extension from the shoulder edge to the end closure, label extension in the longitudinal direction into the end closure on the tube body, label extension in the longitudinal direction over the edge between the tube body and the tube shoulder, or label extension around the entire tube body in the radial direction.

26. Regarding Claim 8, Dronzek in view of Hakansson does not teach a non-linear end closure.

### ***Response to Arguments***

27. Applicant's arguments and amendments with respect to the rejection(s) of claim(s) 1-12 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the newly found prior art reference of Sloan et al.

28. Applicant's amendments overcame the claim objections and the 35 U.S.C. 112, second paragraph, rejections with the exception of claim 2. However, the amendments raised new 35 U.S.C. 112, second paragraph, issues as addressed above.

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29. Applicants amended the claims to include “squeezable” which raises new issues and consideration and necessitated the new 103 rejection incorporating Sloan et al. Applicant’s arguments regarding Dronzek et al. and Hakansson are directed toward the new limitation of “squeezable”. As stated above, Sloan et al. teaches a label on a polyethylene or polypropylene container made from injection molding, where the container is a squeezable container.

***Conclusion***

30. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

31. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHENG YUAN HUANG whose telephone number is (571) 270-7387. The examiner can normally be reached on Monday-Thursday from 8 AM to 4 PM.

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33. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil, can be reached at 571-272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

34. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. H./

Cheng Yuan Huang

Examiner, Art Unit 1794

March 14, 2009

/JENNIFER MCNEIL/

Supervisory Patent Examiner, Art Unit 1794